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RESEARCH CENTER

CHARGE NO. & TITLE: 2100 NEW PRODUCT DEVELOPMENT

TYPE REPORT: ☐ ANNUAL ☐ SEMIANNUAL ☐ COMPLETION ☒ SPECIAL

DATE: April 15, 1977

PERIOD COVERED:

REPORT TITLE: V-4586

CONTROL: 85mm KENT GOLDEN LIGHTS (IBM Code D7KN)

versus

EXPERIMENTAL: 85mm 5mg CORK TIPPED CIGARETTE WITH BLEND  
D7CFW (IBM Code D7KO)

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KEYWORDS:

85mm Kent Golden Lights  
85mm 5mg cork tipped cigarette blend D7CFW

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The Control 85mm Kent Golden Lights cigarette was found:

1. to have the better aftertaste by:
  - a. low delivery smokers ( $p < .001$ )
  - b. regular filter smokers ( $p < .10$ )
  - c. combined panel ( $p < .001$ )
2. to be the preferred cigarette by:
  - a. low delivery smokers ( $p < .005$ )
  - b. combined panel ( $p < .005$ )
3. to have a higher mean rating on the nine-point overall acceptability scale by:
  - a. low delivery smokers ( $p < .001$ )
  - b. regular filter smokers ( $p < .05$ )
  - c. combined panel ( $p < .001$ )
4. to have a higher mean rating on the seven-point purchase probability scale by:
  - a. low delivery smokers ( $p < .001$ )
  - b. combined panel ( $p < .01$ )

The Experimental 85mm 5mg cork tipped cigarette with blend D7CFW was found:

1. to be more spicy by:
  - a. low delivery smokers ( $p < .01$ )
  - b. combined panel ( $p < .05$ )
2. to have an off-taste by:
  - a. low delivery smokers ( $p < .005$ )
  - b. regular filter smokers ( $p < .05$ )
  - c. combined panel ( $p < .001$ )
3. to be harsher by:
  - a. low delivery smokers ( $p < .005$ )
  - b. combined panel ( $p < .005$ )
4. to be more bitter by:
  - a. low delivery smokers ( $p < .05$ )
  - b. combined panel ( $p < .03$ )

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Summary (Continued)

Although not significantly different at the  $p < .10$  level there are some tendencies which should be noted: (1) regular filter smokers preferred the Control 85mm Kent Golden Lights ( $p < .12$ ) (2) low delivery smokers ( $p < .15$ ) and the combined panel ( $p < .12$ ) found the Control 85mm Kent Golden Lights to have more total taste and (3) regular filter smokers found the Experimental 85mm 5mg cork tipped cigarette with blend D7CFW to be harsher ( $p < .12$ ).

Purpose: To evaluate a 5mg cork tipped cigarette with blend D7CFW.

Procedure: Paired-comparison (See Attached ballot for further information).

Panelists: A panel of 300 smokers recruited from the Va. Panel were used for this test. The panel consisted of a cross-section of 150 (85mm) low delivery smokers and a cross-section of 150 (85mm) regular filter smokers. Panelists who have switched to another cigarette type (not in the purposed panel for this test) were tabulated separately.

Cigarettes: Produced and packaged at R&D in Product Opinion Laboratory packs. Presentation was balanced using color codes.

	<u>Red</u>	<u>Black</u>
Control:		
Kent Golden Lights 85mm (IBM code D7KN)	E7	T5
Experimental:		
85mm 5mg cork tipped cigarette with blend D7CFW (IBM Code D7KO)	T5	E7

KEY:

LDS - Cross-section of 85mm low delivery smokers	N=103
RFS - Cross-section of 85mm regular filter smokers	N=114
TSW - Smokers who have switched cigarette types	N= 14
CP - Combined Panel	N=231

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Which cigarette:	Control (D7KN)	Experimental (D7KO)	No Difference	Probability
Has more total taste?				
LDS	51	36	16	p < .15
RFS	58	47	9	NS
TSW	5	7	2	NS
CP	114	90	27	p < .12
Has an off-taste?				
LDS	16	48	39	p < .005
RFS	25	46	43	p < .05
TSW	6	4	4	NS
CP	47	98	86	p < .001
Is harsher?				
LDS	18	49	36	p < .005
RFS	21	38	55	p < .12
TSW	2	3	9	NS
CP	41	90	100	p < .005
Is more spicy?				
LDS	13	40	50	p < .01
RFS	31	31	52	NS
TSW	3	6	5	NS
CP	47	77	107	p < .05
Is sweeter tasting?				
LDS	40	30	33	NS
RFS	38	36	40	NS
TSW	4	4	6	NS
CP	82	70	79	NS
Is more bitter?				
LDS	19	39	45	p < .05
RFS	24	34	56	NS
TSW	1	4	9	NS
CP	44	77	110	p < .03
Is more tobacco-like in flavor?				
LDS	43	39	21	NS
RFS	58	43	13	NS
TSW	4	7	3	NS
CP	105	89	37	NS
Has the better aftertaste?				
LDS	57	23	23	p < .001
RFS	56	38	20	p < .10
TSW	5	6	3	NS
CP	118	67	46	p < .001

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	<u>Control (D7KN)</u>	<u>Experimental (D7KO)</u>	<u>Probability</u>
Which do you prefer?			
LDS	64	34	p < .005
RFS	64	47	p < .12
TSW	7	7	NS
CP	135	88	p < .005

Nine-point overall acceptability scale  
(1 = dislike extremely to 9 = like extremely)

	<u>Mean</u>			
	<u>Control (D7KN)</u>	<u>Experimental (D7KO)</u>	<u>t-scores</u>	<u>Probability</u>
LDS	6.18	4.88	4.62	p < .001
RFS	5.28	4.70	2.03	p < .05
TSW	5.57	5.71	0.15	NS
CP	5.70	4.84	4.29	p < .001

Seven-point purchase probability scale  
(1 = definitely not to 7 = definitely)

	<u>Mean</u>			
	<u>Control (D7KN)</u>	<u>Experimental (D7KO)</u>	<u>t-scores</u>	<u>Probability</u>
LDS	4.30	3.31	3.62	p < .001
RFS	3.65	3.30	1.37	NS
TSW	3.64	4.07	0.53	NS
CP	3.94	3.35	3.23	p < .01

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Comparison of Brands Used for Mailout  
Versus Brands of Test Respondents

	<u>Mailout (%)*</u>	<u>Returned (70</u>
<u>Low Delivery Brands</u>		
Kent	14.7	11.3
Parliament	6.7	4.0
Vantage	12.7	8.7
True	4.0	2.7
Doral	4.0	2.7
Carlton	6.0	6.0
Kent Golden Lights	6.7	2.0
Merit	6.7	3.3
Now	2.7	2.0
Lark	4.0	4.0
Tareyton	10.0	7.3
B&H Multifilter	2.0	0.7
Marlboro Lights	8.0	5.3
Winston Lights	8.0	2.7
All others	4.0	6.0
<u>Regular Filter Brands</u>		
Marlboro	41.3	32.0
Winston	36.7	24.7
L & M	4.0	2.7
Viceroy	6.0	6.0
Raleigh	4.0	2.7
Camel	3.3	2.7
Old Gold	1.3	0.7
All others	3.3	4.7
Type Switchers**	--	9.3

\* Percentages based on share of market held by each individual brand

Source: 1976 Maxwell Report: Third Quarter

\*\* Includes anything other than an 85mm Low delivery cigarette or an 85mm Regular filter cigarette.

1000365338

TO: Marv Sanderford

DATE: March 16, 1977

FROM: J. E. Wickham

SUBJECT: Virginia Panel V-4556

Submitted By: P. Gauvin

D7KN = Red E\* and Black TS = Kent Golden Lights 85 Cigarettes

D7KO = Red TS and Black E\* = 85 mm 5 mg Candidate, D7CFW Blend With Cork Tipping

The 85 mm 5 mg candidate, D7CFW blend with cork tipping (D7KO), was different from the Kent Golden Lights 85 cigarettes (D7KN) in all characteristics tested except puff count, static burning time, circumference, type paper additive, and tipping paper length.

The Kent Golden Lights 85 cigarettes will be identified to the panelists.

	Kent Golden Lights 85	85 mm 5 mg Candidate D7CFW Blend With Cork Tipping
IBM Code	D7KN	D7KO
<u>Smoke</u>		
Butt Length, mm	35	35
FTC Tar, mg/cigt.	7.6	4.8
Nicotine, mg/cigt.	0.69	0.46
Puffs/cigt.	7.6	8.2
Filtration Eff., %	52	63
<u>Cigarette</u>		
Total RTD, in. of H <sub>2</sub> O	3.7	4.6
Static Burn. Time, min.	6.6	7.2
Length, mm	84.6	84.1
Circumference, mm	24.9	25.0
<u>Paper</u>		
Additive, type	Cit.	Cit.
Porosity, sec	19	11
<u>Filter</u>		
RTD, in. of H <sub>2</sub> O	2.9	3.9
Length, mm	24.9	27.0
Weight, g	0.16	0.19
Tipping paper length, mm	32	32
Dilution, %	38	43
<u>Filler</u>		
Total alkaloids, %	1.88	1.68
Total reducing sugars, %	6.8	4.1
Wt. of tob., g	0.665	0.710
Rod Density, g/cc	0.226	0.250

JEW:gmw

cc: Dr. R. B. Seligman  
Mr. F. E. Resnik  
Mr. T. T. Goudale  
Mr. R. W. Thomson  
Dr. W. F. Gannon  
Mr. J. S. Smalley  
Mr. E. L. Davison  
Mr. H. G. Danie  
Mr. L. E. Meyer  
Mr. R. L. Spilberg  
Mr. P. M. Gaudin  
Analytical File

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INTER-OFFICE CORRESPONDENCE

**RICHMOND, VIRGINIA**

To: Jerry Osmalov

Date: February 11, 1977

From: Mary Sandeford

**Charge No. 2100**

Subject: Virginia Panel Test V-4586

**Test Requester:** Paul Gauvin

Approved by: D. Meyer  
Manager

**Panel Makeup:** 150 Cross Section 85mm Health Filter Smokers  
150 Cross Section 85mm Regular Filter Smokers

**Presentation: Paired Comparison**

**Quantity:**

### Control

Red	E7	750 packs
Black	T5	750 packs

## Experimental

Red	T5	750	packs
Black	E7	750	packs

**Cigarette Descriptions:**

**Control - Kent Golden Lights, Identified**

Experimental - 5mg Candidate - Use X6D7CFW Blend, Use Cork Tipping. See P. Gauvin or L. Filosa for remaining specs.

15

cc: R. Selligman J. Wickham J. Whitman  
W. Gannon H. Daniel M. Johnston  
R. Thomson H. Spielberg J. Warren (3)  
F. Daylor E. Chambers B. Raney  
L. Meyer C. Kounnas P. Gauvin (Requester)  
L. Filosa

**100365340**



(Make address changes on this label.)

PRODUCT OPINION LABORATORY  
P.O. Box 28563 - Richmond, Va. 23261  
Phone: (804) 271-3388

RETURN BALLOT BY

V-4586

R

Dear Panelist:

With this ballot I am sending you ten packs of cigarettes coded as follows:  
E7 - 5 packs and T5 - 5 packs. Remember, you do not have to smoke all of  
the cigarettes - only as many as you need to complete the questionnaire.

When this questionnaire is completely filled out, please return it to me in  
the enclosed postage-paid envelope. Thank you very much - your cooperation in  
this test is most helpful.

D. F. Reynolds  
Panel Leader

PLEASE READ ENTIRE BALLOT BEFORE STARTING TEST

First smoke some of the cigarettes marked E7 and then the cigarettes  
marked T5. Then compare the two cigarettes with each other and complete the  
questions below.

Which cigarette:	E7	T5	No Difference
1. has more total taste?	_____	_____	_____
2. has an off-taste?	_____	_____	_____
3. is harsher?	_____	_____	_____
4. is more spicy?	_____	_____	_____
5. is sweeter-tasting?	_____	_____	_____
6. is more bitter?	_____	_____	_____
7. is more tobacco-like in flavor?	_____	_____	_____
8. has the better aftertaste?	_____	_____	_____
9. Which do you prefer? (choose one)	_____	_____	_____

- 10a. Check the box that best describes how you feel about the overall acceptability  
of the cigarette coded E7.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
dislike extremely	dislike very much	dislike moderately	dislike slightly	neither like nor dislike	like slightly	like moderately	like very much	like extremely	like

- 10b. Check the box that best describes how you feel about the overall acceptability  
of the cigarette coded T5.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
dislike extremely	dislike very much	dislike moderately	dislike slightly	neither like nor dislike	like slightly	like moderately	like very much	like extremely	like

- 11a. Would you buy the E7 cigarette if it were available now?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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definitely probably possibly uncertain possibly probably definitely  
 not not not  
 11b. Would you buy the T5 cigarette if it were available now?

--	--	--	--	--	--	--

definitely probably possibly uncertain possibly probably definitely  
 not not not

What brand do you usually smoke? (Please be specific, e.g.,  
 Marlboro Lights, Winston Lights, Kool Milds, etc.)

BRAND: \_\_\_\_\_

Is it filtered? ☐ Yes ☐ No (check one)  
 Is it menthol? ☐ Yes ☐ No (check one)  
 If it is filtered, is it ☐ King Size (80/25mm) or  
☐ Super Long (100/120mm)

How many cigarettes do you smoke per day? \_\_\_\_\_

VA-14

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